

M103710088

Mike  
Peter

6009



## **LISBON VALLEY MINING CO**

---

Paul Baker  
Minerals Program Manager

Mike Bradley  
Reclamation Specialist

Peter Brinton  
Environmental Scientist/Engineer

Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84116

RECEIVED

APR 02 2014

DIV. OF OIL, GAS & MINING

March 12, 2014

Re: Response to Comments – Revised Lisbon Valley Waste Rock Sampling Plan - Lisbon Valley Mining Co LLC 920 South County Road 313 La Sal, Utah, 84530, DOGM Permit M/037/088.

Dear Paul, Peter and Mike,

The Lisbon Valley Mining Co LLC (LVMC) respectfully submits this response to DOGM's comments regarding the above-referenced revision of the Waste Rock Sampling Plan. All comments have been responded to in the format received and incorporated into the 2013 Waste Rock Report.



## Response to Comments

### Lisbon Valley Waste Rock Sampling Plan

Comment #	Response
1	An authorized Officer Lantz Indergard and or Bob Frayser will sign this and future amendments.
2	The details of the Waste Rock Sampling Plan amendment will be clearly detailed in the 2013 Waste Rock Report
3	Rock Type 8 will be included in the 2013 report.
4	A quarter's samples are collected and shipped to the 3rd party lab for analysis. The lab composites the samples by rock type. A description of the procedure for composting is follows. "If the rock is >5cm then we would first crush it with the jaw crusher until everything was <5cm. Then we combine all samples to be composited on a clean tarp and mix by closing the tarp and rolling the samples together inside the tarp. Subsamples are then taken by quartering the sample on the tarp and taking the entire quarter for analysis." <sup>1</sup>
5	LVMC will analyze the expanded list of analytes moving forward.
6	ABA: Standard ABA modified for pyritic sulfur. (Both total sulfur and pyritic sulfur are displayed in the reporting)
6	MWMP: Extraction fluid pH (Type 1 water 5.7-5.8). Screening-particle size. Material is weighed and run through a 5cm sieve. The >5cm material is weighed and crushed to just pass the 5cm sieve. It is then recombined with the material and thoroughly blended. Once this process is complete 100% of the material passes a 5cm screen and is thoroughly blended.
7	The current waste dump schedule will be updated with each revision to the Waste Rock Sampling Plan.
8	The discussions will be refined to include NNP and NPR data.
9	A discussion of the minerals responsible for acid formation and acid neutralization will be included in the annual Waste Rock Reports.
10	The Waste Rock Reports will identify the NPR values for each Rock Type and Rock Type 8 will be included in the discussion.

<sup>1</sup> ACZ Labs 2014. Personal communication Sue Webber ---12/5/2013.



<b>11</b>	The statement will be revised to clearly describe sulfur's relationship to AGP, CaCO <sub>3</sub> 's relationship to ANP, and then their relationship to each other.
<b>12</b>	The Waste Rock Reports will identify the NPR values for each Rock Type.
<b>13</b>	The statement will be corrected.
<b>14</b>	The Waste Rock Reports will identify the locations of the samples taken on the as-built Pit Maps.
<b>15</b>	The Waste Rock Reports will identify the NPR values for each Rock Type and the "Waste Rock Reporting Review" will utilize the terminology NNP, NPR, Likely, Uncertain and Unlikely in accordance with the definition in the comments provided.
<b>16</b>	The Waste Rock Reports will identify the NPR values for each Rock Type and the Waste Rock Sampling Results section will include NNP and NPR terminology.
<b>17</b>	Removal of this section will be considered.
<b>18</b>	This section's objective is to create a concise narrative version of the data. Statements will be refined to clarify that a specific analyte was detected or not detected in the leachate from a specific rock type.
<b>19</b>	The Waste Rock Reports will clearly state how NPR was calculated for all figures and detail any corrections made.
<b>20</b>	The Waste Rock Reports will identify the NPR values for each Rock Type and those terms will be utilized throughout..
<b>21</b>	A more detailed review of Rock Type 6 will be included in the 2013 Waste Rock Report.
<b>22</b>	<p>Lisbon Valley Mine has the expectation that all laboratory testing will be consistent and follow Standard Operating Procedures. This topic has been addressed in 2013. The column titled size fractions is describing the arrival size fraction percentage over 5cm. The entire sample over 5cm is crushed to &lt;5cm. The MWMP test will initiate the local precipitation pH value in 2014 and will continue to utilize a standardized size fraction. Extraction fluid amounts vary due to the way the required extraction fluid amount is calculated:</p> <p>"When a volume equal to the mass of dry solids in the column has been delivered through the column (assume 1mL = 1g), cease application of the extraction fluid by pulling influent tube and placing it in 5 gallon overflow bucket if other samples are still running. Collected volume weight is calculated by weighing the cube-tainer with the lid on and subtracting the tare weight that was written on the cube at set up. Record final volume extracted on the bench sheet under "leachate volume"." <sup>2</sup></p>
<b>23</b>	All identified errors with the 2012 Waste Rock Report will be identified and detailed in the 2013 Waste Rock Report.

<sup>2</sup> ACZ Labs 2013 Standard Operating Procedure 036 Section 11.40.



<b>24</b>	A more distinguishable color pallet will be utilized and the end-of-year boundary survey will be included in the waste dump as-built maps.
<b>25</b>	A standard as -built map of the waste material located at GTO will be included.
<b>26</b>	The as-built maps will be refined to more clearly depict the permitted dump boundaries relative to placement of and their beds 6-10.. In further discussion LVMC Personnel have been trained to identify beds 6-10 and set it near the center of the dumps in accordance with encapsulation requirements.
<b>27</b>	A more distinguishable color pallet will be utilized to identify beds, a date for which the map is current and identification of the sample locations will be included in the Waste Rock Reports.

LVMC appreciates the agency's continued support. Additional comments should be directed to Lantz Indergard 435-686-9950 x107 or Ken Ezpeleta 435-686-9950 x126.

Best Regards,



Lantz M Indergard PG  
Environmental and Exploration Manager  
Lisbon Valley Mining Co LLC  
920 South County Road 313  
La Sal Utah 84530  
[Lindergard@lisbonmine.com](mailto:Lindergard@lisbonmine.com)  
435 686 9950 #107